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PATENT

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FOOD PACKAGING CLOSURE APPARATUS

Background of the Invention

(1) Field of the Invention

The present invention pertains to a food packaging closure apparatus that provides a removable lid on tightly packaged food products such as sausages, cookie dough and brick cheeses, where the lid is removably attached over a surface of the food product that has been exposed by cutting through the packaging of the food product.

(2) Description of the Related Art

Various different types of food products are wrapped and sealed inside plastic packaging that tightly conforms to the exterior surface configuration of the food product. Examples of this type of packaging can be found on breakfast sausage, hamburger, and cookie dough where the uncooked food product has an elongated cylindrical shape with rounded, semi-circular ends. The packaging is wrapped tightly around the food product and conforms to the

shape of the food product. Other examples of this type of packaging are used in sealing individual cooked or smoked sausages.

This type of packaging is also employed in sealing food products having rectangular configurations, for example brick cheese. Again, the packaging is wrapped tightly around the exterior surface of the food product and conforms to the rectangular shape of the food product.

This type of packaging is disadvantaged in that, with the plastic packaging being tightly wrapped around the exterior configuration of the food product, be it a cylindrical exterior configuration or a rectangular exterior configuration, when a consumer cuts into the food product to obtain a desired amount of the food product, it is necessary to also cut through a portion of the packaging. This leaves no excess packaging material after the packaging has been opened that can be used to close and reseal the packaging, preserving the food product inside the packaging. It is often necessary to store the food product with the opened packaging in a separate sealed container, or to wrap the opened food product in a separate sheet of food packaging material such as plastic wrap or aluminum foil.

Summary of the Invention

The food packaging closure apparatus of the present invention overcomes the disadvantages associated with the tightly wrapped packaging of certain food products described above, by providing an apparatus that may be employed to reseal the food packaging of the food product after it has been opened. The apparatus is basically comprised of a tubular body that is dimensioned to fit tightly over the exterior surface of the opened food product

and the remaining packaging on the open food product, and a separate lid that is removably attachable to the tubular body to seal over the exposed surface of the opened food product.

The tubular body has a length with opposite first and second ends and an interior bore extending through the body between the first and second ends. The first end of the tubular body is provided with an external rim that increases the thickness of the tubular body at the first end and provides some rigidity to the tubular body. The second end of the tubular body is resiliently flexible to a limited extent.

The tubular body is dimensioned so that the opened food product can be inserted through the first end of the tubular body and the tubular body passed over the packaging on the exterior surface of the food product. The tubular body is positioned relative to the opened food product so that the tubular body extends around the open end of the food product. The second end of the tubular body is dimensioned to tightly engage around the packaging on the exterior of the food product. The lid can then be removable attached to the first end of the tubular body to seal over the opened end of the food product packaging.

When more of the food product is desired, the lid is removed from the first end of the tubular body and the tubular body is moved over the exterior surface of the food packaging to expose the desired amount of the food product at the first end of the tubular body. The desired amount of the food product can then be cut from the remainder of the food product in the packaging. The tubular body is then repositioned so that the now new

opened end of the food product and packaging is positioned inside the tubular body. The lid is then reattached to the first end of the tubular body to seal closed the new opened end of the food product.

The food packaging closure apparatus may be provided in a variety of different configurations to suit it for the variety of different configurations of food packaging. For example, the tubular body and lid could have circular cross section configurations for use with food products contained in packaging that have cylindrical configurations. The tubular body and lid could also have rectangular cross section configurations for use with food products and packaging that have rectangular configurations.

Description of the Drawings

Further features of the invention are set forth in the following detailed description of the preferred embodiments of the invention and in the drawing figures wherein:

Figure 1 is a perspective view of a first embodiment of the food packaging closure apparatus of the invention;

Figure 2 is a perspective view of the apparatus of Figure 1 in use on the packaging of a food product having a cylindrical configuration;

Figure 3 is a perspective view of a further embodiment of the apparatus of the invention having a rectangular configuration; and

Figure 4 is a perspective view of the apparatus of Figure 3 in use on the packaging of a food product having a rectangular configuration.

Detailed Description of the Preferred Embodiments

Figures 1 and 2 show a first embodiment of the food packaging closure apparatus (12) of the present dimension. Figure 1 shows the apparatus (12) removed from a food product, and Figure 2 shows the apparatus (12) applied to a food product (14). This first embodiment of the apparatus (12) is comprised of a tubular body (16) and a separate, removable lid (18) that are designed for packaged food products having a generally cylindrical configuration.

The tubular body (16) is provided in a variety of different sizes, with each size specifically dimensioned to fit tightly over the exterior surface and packaging of an opened food product. In the preferred embodiment, the tubular body (16) is formed of a plastic material that gives the body some resilience. The body (16) has a tubular wall (22) having opposite exterior (24) and interior (26) surfaces. The interior surface (26) is a smooth surface that surrounds a hollow interior bore of the tubular body. The body has a length that extends from a first end edge (28) surrounding a first opening (32) of the body, to a second end edge (34) surrounding a second opening (36) of the body. Both the first end edge (28) and the second end edge (34) are circular. However, the first opening (32) surrounded by the first end edge (28) is slightly larger than the second opening (36) surrounded by the second end edge (34). This gives the body tubular body (22) a slightly tapering configuration as it extends from the first end edge (28) to the second end edge (34). The tubular wall (22) has a consistent, thin thickness along the length of the tubular wall except for the first end edge (28) of the body. An

annular rim (38) is provided on the tubular wall exterior surface (24) at the first end edge (28). The annular rim (38) projects a small distance radially outwardly from the tubular wall exterior surface (24) at the first end edge (28). The rim (38) gives the tubular wall (22) an increased thickness at the first end edge (28) than that at the second end edge (34), and also gives the tubular body (16) an increased rigidity at the first end edge (28).

The lid (18), like the tubular body (16), is preferably constructed of a resilient plastic material. The lid (18) has a circular configuration defined by a peripheral edge (44) of the lid, and opposite exterior (46) and interior (48) surfaces. The lid has an annular lip (52) that extends around its peripheral edge (44) and projects slightly outwardly from the lid interior surface (48). The lip (52) is dimensioned to the resiliently snap fit over the annular rim (38) of the tubular body (16) to attach the lid (18) in a sealing engagement over the tubular body first end edge (28).

As stated earlier, Figure 2 shows an example of the tubular body (16) and lid (18) of the food packaging closure apparatus (12) used on a food product (14). The example of the food product (14) shown in Figure 2 is a sausage that has its packaging opened by having one end cut off. The food product (14) of Figure 2 is only one example of a food product with which the food packaging closure apparatus (12) of the invention may be used. The cut away portion of the food product (14) has exposed a surface (54) of the food product from the packaging (56). The remaining packaging (56) of the food product surrounds the exposed food product surface (54).

In attaching the tubular body (16) to the food product (14), the unopened end (58) of the food product packaging is preferably first inserted into the first opening (32) of the tubular wall. The food product unopened end (58) is passed through the interior bore of the tubular body (16) so that the second end edge (34) of the tubular wall (22) engages tightly around the packaging (56) of the food product. The tubular body (16) can be constructed of a material that gives the body a limited resilience, which would allow the second end edge (34) to stretch slightly and engage in a tight, sealing fit around the packaging (56) of the food product (14). However, a majority of the products with which the apparatus of the invention is intended to be used have a resilience at their exterior surface. Thus, with the tubular body (16) formed of a somewhat rigid plastic material, passing the food product (14) through the interior bore of the tubular body (16) will result in the second end edge (34) of the tubular body compressing the food product and engaging in a tight sealing fit around the packaging (56) of the food product.

The tubular body (16) is moved along the exterior surface of the food product packaging (56) to the position shown in Figure 2. In Figure 2, the tubular body (16) extends around the exposed surface (54) of the food product while still engaging around the packaging (56) of the food product. Removably attaching the lid (18) to the tubular body (16) by snapping the lid lip (52) over the tubular body annular rim (38) seals closed the food packaging apparatus (12) of the invention, with the food product exposed surface (54) sealed inside the apparatus.

When more of the food product is desired, the lid (18) is removed from the first end edge (28) of the tubular body (16), and the tubular body is moved along the length of the food packaging (56) toward the unopened end (58) of the packaging. This projects a portion of the food product (14) outside of the tubular body interior bore and beyond the tubular body first end edge (28) where the desired amount of the food product (14) can then be cut away, producing a new exposed surface (54) of the food product. The tubular body (16) is then moved along the food product packaging (56) away from the unopened end (58) of the packaging to a position where the tubular body (16) surrounds the new exposed surface (54) of the food product. The lid (18) is then re-attached to the first end edge (28) of the tubular body (16) to reseal the apparatus with the food product exposed surface (54) sealed in the apparatus.

Figures 3 and 4 show a further embodiment of the food packaging closure apparatus (66) of the invention. The apparatus (66) shown in Figures 3 and 4 is basically the same as that shown in Figures 1 and 2, except that it is designed for use with a food product (68) having a rectangular cross section, for example, brick cheese. The apparatus shown in Figures 3 and 4 also is basically comprised of a tubular body (72) and a removable lid (74).

The tubular body (72) has a tubular wall (76) with opposite exterior (78) and interior (82) surfaces. The interior surface (82) surrounds a hollow interior bore through the tubular body (72). The tubular wall (76) extends from a first end edge (84) that surrounds a first opening (86) of the tubular body, to

a second end edge (88) that surrounds a second opening (92) of the tubular body. A rectangular rim (94) extends around the first opening (86) and projects slightly outwardly from the exterior surface (78) of the tubular wall (76). As in the first embodiment, the tubular wall (76) has a consistent thin wall thickness except at the first end edge (84) of the tubular wall. The rectangular rim (94) at the tubular wall first end edge (84) gives the wall a greater thickness at this end of the tubular body than that at the second end edge (88). In addition, as in the first embodiment, the first opening (86) at the first end edge (84) of the tubular body (72) is slightly larger than the second opening (92) at the second end edge (88) of the tubular body. This gives the tubular wall (76) a slightly tapered configuration as it extends from the first end edge (84) to the second end edge (88).

The lid (74) has a rectangular peripheral edge (98) and opposite exterior (102) and interior (104) surfaces. The lid (74) is dimensioned slightly larger than the first opening (86) of the tubular body (72). A rectangular lip (106) projects from the lid peripheral edge (98) outwardly from the lid interior surface (104). As in the first embodiment, the rectangular lip (106) is dimensioned to be snapped fit and sealingly engaged over the rectangular rim (94) that surrounds the tubular body first end opening (86).

The embodiment of the food packaging closure apparatus shown in Figures 3 and 4 is used in the same manner as the embodiment of Figures 1 and 2 described earlier.

The embodiments of the food packaging closure apparatus of the invention described above provide a removable lid for food products that are

wrapped in tight packaging, such as sausages and brick cheese, overcoming the disadvantages associated with this type of packaging when the food product is opened. The lid is removably attached to the body over the surface of the food product that has been exposed by cutting through the packaging of the food product, thus providing a method of preserving the food product.

Although particular embodiments of the invention have been described above, it should be understood that variations and modifications could be made to the invention without departing from the intended scope of protection provided by the following claims.